What is claimed is:

1. A DNA fragment from the genome of *Amycolatopsis mediterranei* which comprises a DNA region which is involved directly or indirectly in the gene cluster responsible for rifamycin synthesis, including the adjacent DNA regions to the right and left which, by reason of their function in connection with rifamycin biosynthesis, qualify as constituent of this rifamycin gene cluster; and functional fragments, derivatives or constituents thereof.

2. A DNA fragment according to claim 1, which is directly or indirectly involved in the gene cluster responsible for rifamycin synthesis.

3. A DNA fragment according to claim 1, which comprises sequence portions which code for a polyketide synthase or an enzymatically active domain thereof.

4. A DNA fragment according to claim 1, which comprises SEQ ID NO 1 or SEQ ID NO 3 or at least 15 consecutive nucleotides therefrom.

5. A DNA fragment according to claim 1, wherein said fragment comprises one or more of the partial nucleotide sequences depicted in SEQ ID NOS 1 and/or 3, or functional fragments thereof, and all other DNA sequences in the vicinity of this sequence which can, by reason of homologies which are present, be regarded as structural or functional equivalents and are therefore able to hybridize with this sequence.

6. A DNA fragment according to claim 1, wherein said fragment comprises a nucleotide sequence selected from the group consisting of ORF A, B, C, D, E and F or functional fragments thereof, or encodes one or more of the proteins or polypeptides, or functional derivatives thereof, depicted in SEQ ID NOS 4 to 9.

7. A method for identifying, isolating and cloning a DNA fragment according to claim 1.

8. A method according to claim 7, which comprises the following steps:
   - setting up of a genomic gene bank,
   - screening of this gene bank with the assistance of the DNA sequences according to the invention, and
   - isolation of the clones identified as positive.

9. The use of a DNA fragment according to claim 1 in the production of ansamycins or precursors thereof; including those in which the aliphatic bridge is connected only at one end to the aromatic nucleus.

10. The use of a DNA fragment according to claim 1 in the production of rifamycin, rifamycin analogues or precursors thereof.

11. The use of a DNA fragment according to claim 1 for inactivating or modifying genes of ansamycin biosynthesis.

12. The use of a DNA fragment according to claim 1 for inactivating or modifying genes of rifamycin biosynthesis, or the biosynthesis of rifamycin analogues.

13. The use of a DNA fragment according to claim 1 for constructing mutated actinomycetes strains from which the natural rifamycin or ansamycin biosynthesis gene cluster in the chromosome has been partly or completely deleted.

14. The use of DNA fragments according to claim 1 for assembling a library of polyketide synthases.

15. The use of the polyketide synthases according to claim 14 for assembling a library of polyketides.

16. A polyketide synthase from *Amycolatopsis mediterranei* which is directly or indirectly involved in rifamycin synthesis; and functional constituents or domains thereof.

17. The use of the polyketide synthase according to claim 16 for synthesizing ansamycins.

18. The use of polyketide synthases according to claim 14 for synthesizing a library of ansamycins.

19. A hybrid vector comprising a DNA fragment according to claim 1.

20. A hybrid vector comprising an expression vector comprising a DNA fragment according to claim 1.

21. A host organism comprising a hybrid vector according to claim 19.

22. A hybridization probe comprising a DNA fragment according to claim 1.

23. The use of the hybridization probe according to claim 22 for identifying DNA fragments involved in the biosynthesis of ansamycins.